

(No Model.)

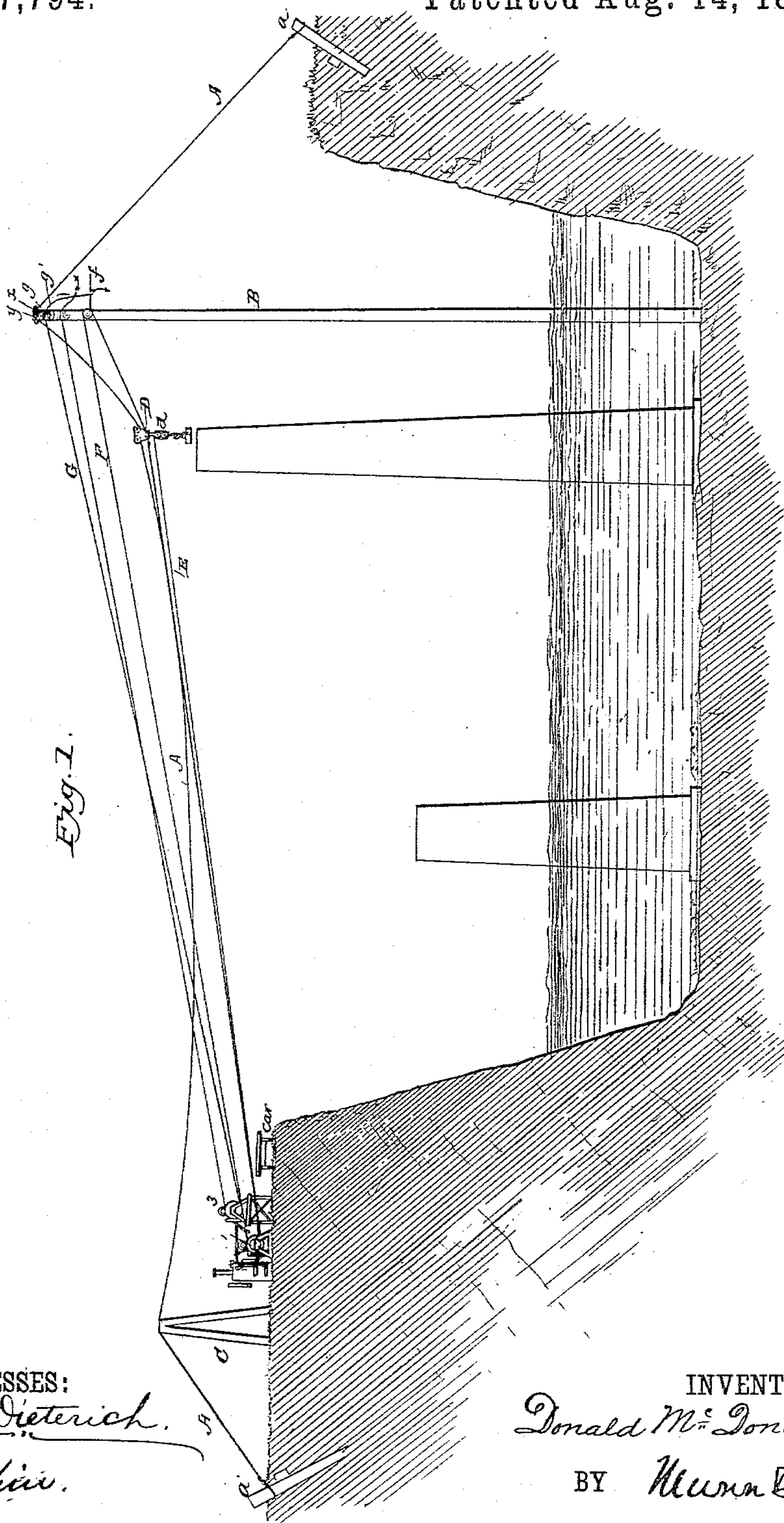
2 Sheets—Sheet 1.

D. Mc DONALD.

APPARATUS FOR TRANSPORTING AND SETTING STONE.

No. 387,794.

Patented Aug. 14, 1888.



WITNESSES:

Fred G. Dieterich.

P. B. Surpin.

INVENTOR:

INVENTOR.
Donald M.^c Donald.

BY

Kennel

ATTORNEYS.

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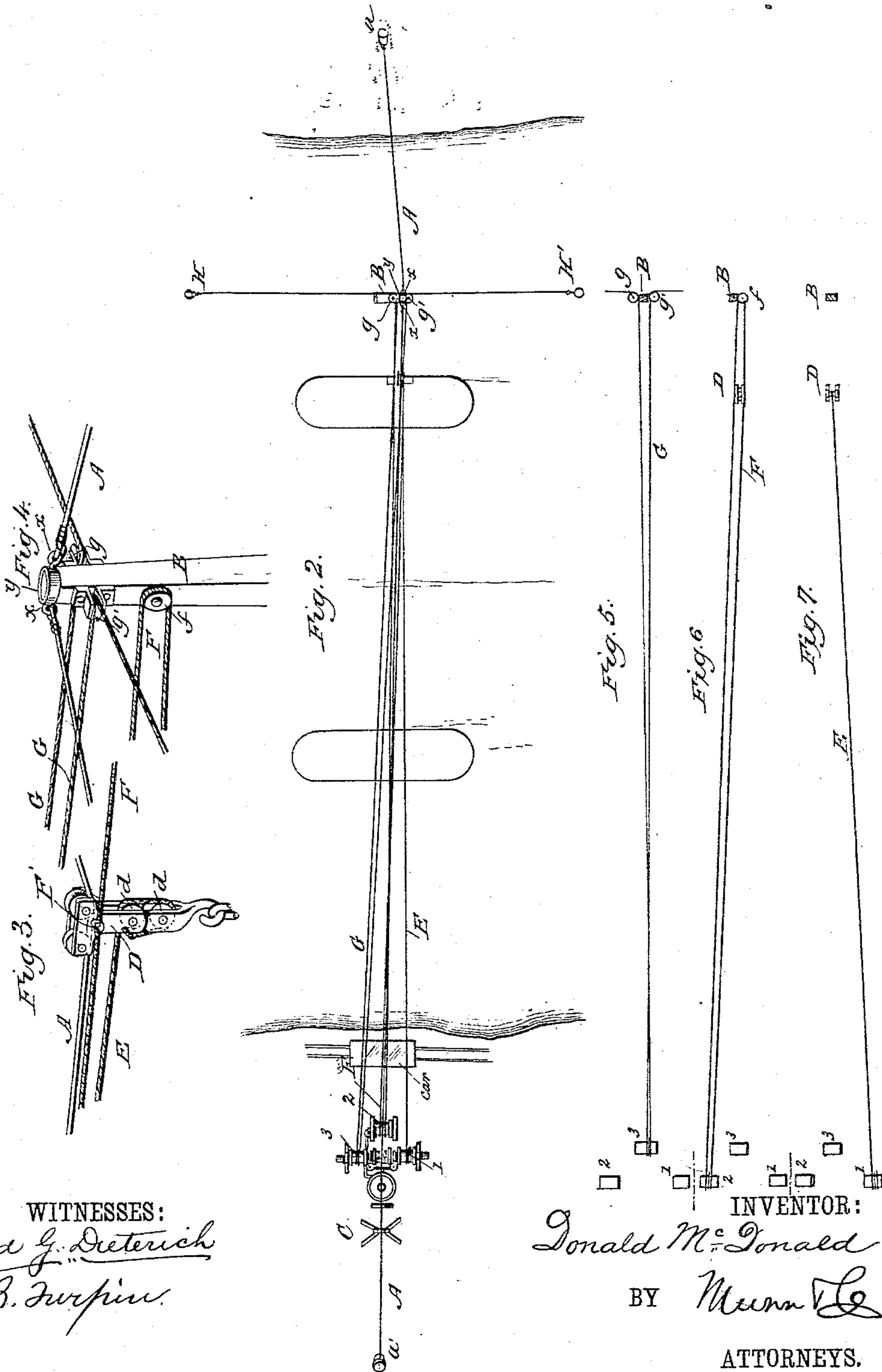
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Donald McDonald
BY *Wm. L. L.*
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UNITED STATES PATENT OFFICE.

DONALD McDONALD, OF LOUISVILLE, KENTUCKY.

APPARATUS FOR TRANSPORTING AND SETTING STONE.

SPECIFICATION forming part of Letters Patent No. 387,794, dated August 14, 1888.

Application filed December 21, 1887. Serial No. 258,632. (No model.)

To all whom it may concern:

Be it known that I, DONALD McDONALD, of Louisville, in the county of Jefferson and State of Kentucky, have invented a new and useful
5 Improvement in Apparatus for Transporting and Setting Stone, of which the following is a specification.

My invention is an apparatus for use in transporting and setting stone, and will be found
10 useful in the building of bridge-piers, in which connection I have shown it, and in the building of other structures.

The apparatus comprises means for lifting the stone, conveying it to a position over the
15 point where it is desired to set it, and for lowering it to position. The apparatus also comprises means for shifting the parts from time to time, so the stone may be guided over the position in which it is to be set, and other
20 improvements, as will be described.

The invention consists in certain features of construction and novel combinations of parts, as will be hereinafter set forth.

In the drawings, Figure 1 is an elevation of the apparatus as applied for use in the erection of piers of a river-bridge. Fig. 2 is a plan
25 view. Figs. 3 and 4 are detail views; and Figs. 5, 6, and 7 are diagrammatic detail views, as will be described.

30 A cable, A, extends from the mast B and is anchored at one end at *a* and at its other end at *a'* by stakes, as shown, or in other suitable manner, being carried over a tower, C, near its end *a'* in order to elevate it at such point over
35 the devices employed at such end of the cable, as shown in Fig. 1.

It is preferred to secure the cable rigidly to the mast, and in so doing to form the said cable in two sections, one extending from the mast
40 to stake *a* and the other from the mast to stake *a'*, such sections being secured to the mast by eyebolt *x*, passed through cap *y*, fitted on the mast.

The traveler or carrier D runs on this cable-track A, having suitable tackle-blocks, *d*, from
45 which hangs the stone it is desired to transport and set. The line E runs through the tackle-blocks *d* and is connected with the stone, preferably through the intervention of pulley-block and hook, as clearly shown in Fig. 3,
50 such line being connected at its other end with

hoisting device 1, by the operation of which the stone may be raised or lowered with respect to the carrier D and the cable on which such carrier runs. The endless line F passes
55 around the drum of hoisting device 2 and around a sheave or guide, *f*, on the mast B, and is secured at F' to the carrier, so that by the proper operation of the hoisting device 2 the carrier and the object supported thereby can
60 be moved back and forth as occasion may render desirable. The cable G passes around the drum of a hoisting device, 3, and may be looped several times around said drum, so as to receive motion therefrom without being secured
65 to the drum. This cable has its ends carried over guides or sheaves *g g'* at the upper end of the mast B, and thence carried laterally in opposite directions and anchored at H H', as shown most clearly in Fig. 2. By means of
70 the hoisting device 3 and the arrangement of the cable G, as described, the mast may be moved laterally in either direction and held in position by the said hoisting device in order to adjust the track-cable over the point
75 where it is desired to set the blocks of stone, and the position of the mast may thus be changed from time to time as the stones are set.

The hoisting devices 1, 2, and 3 may be of any suitable construction—such, for instance,
80 as any ordinary form of hoisting-engine—and I do not seek to claim herein the specific construction of such hoisting devices.

In operation the traveler or carrier is brought immediately over the car from which the stone
85 is to be taken, and slack is thrown out on the line E by revolving the drum of hoisting device 1. The stone is then secured and the line E drawn in, elevating the stone. Then, by means of the line F, the carrier with the at-
90 tached stone is moved to a position over the pier or other point where it is desired to deposit the stone, the line E being properly manipulated to hold the stone elevated until the carrier and attached stone have been brought
95 over the pier, when by letting out line E the stone may be lowered. When one stone is set, the cable-track is shifted to position for setting the next stone, which shifting of the track is accomplished by shifting the mast A by
100 means of the cable G and hoisting device 3, as before described.

In Figs. 5, 6, and 7 I show in diagrammatic form, respectively, the lines G, F, and E, in order that the disposition of such parts may be fully understood.

5 The apparatus is simple, easily rigged, and will be found useful and easy of operation in transporting and setting the heaviest stones.

The portions of cable G between the mast and the anchored ends of such cable, in addition to serving as means for adjusting said mast, also operate as guys therefor, as will be understood from Fig. 2.

10 In the construction shown the hoisting devices 1, 2, and 3 each comprises a drum and framing supporting said drum; but the construction of such devices may be modified without departing from the spirit of this invention, as I do not herein seek to cover broadly the specific construction of the hoisting devices, 20 and as any other suitable form of hoisting-machine might, if desired, be substituted for the particular construction of the hoisting devices shown.

Having thus described my invention, what I 25 claim as new is—

1. In an apparatus substantially as described, the combination, with a mast suitably supported, whereby it may be adjusted or moved laterally at its upper end, of the cable 30 G, having its end portions disposed around guides on said mast and having such end portions extended from the mast in opposite directions and at approximately right angles to the direction of the main portion of the cable, 35 substantially as set forth.

2. The combination of a hoisting device, 3,

a mast, B, suitably supported, whereby it may be adjusted or moved laterally at its upper end, and having guides *g g'* at its upper end, and the cable G, passed around the drum of hoisting device 3, thence over the guides *g g'*, and having its ends extended laterally from the mast in opposite directions and anchored, substantially as set forth. 40

3. An apparatus, substantially as described, comprising a mast, a cable-track extended therefrom and anchored at its ends, a carrier on said track, a cable, G, engaging guides on and extended at its ends in opposite directions from said mast, and a hoisting device for operating said cable G, substantially as set forth. 45 50

4. The apparatus comprising the mast, the track-cable, the cable G, the cable F, the carrier, and the hoisting devices 2 and 3 for said cables F and G, substantially as and for the 55 purposes specified.

5. The improved apparatus herein described, consisting of the mast B, having guides *g g'*, the tower C, the track-cable A, extended from said mast over the tower and anchored 60 at its ends, the traveler or carrier on track A, the line E, connected therewith, the hoisting device 1 for operating said line E, the cable F, and hoisting device 2, the cable G, passed around the guides *g g'* and extended thence 65 in opposite directions from the mast, and the hoisting device for operating said cable G, substantially as set forth.

DONALD McDONALD.

Witnesses:

T. W. SPINDLE,

KENNETT McDONALD.